MDS 6.30.05

A Communications System

This application is a 371 of PCT/GB03/01373 03/28/2003

This invention relates to a communications system.

More particularly, the invention relates to a communications system comprising: a communications network comprising network nodes and network links between the network nodes; and a network management system for allocating connections to said network, said connections utilising network nodes and network links.

Requests for connections on the network are made over time to the network management system. Each request may be accepted or rejected. If a request is accepted, the connection is allocated to the network, and continues for a duration (which may or may not be known at the time of the request). If accepted, a connection will require the use of some of the resources of the network. In this regard, a network may be considered a set of resources R. Typically, to a connection request there is associated a set A of options, each option of the set being a way of carrying the connection, i.e. each member 'a' of the set A of options is itself a set of network resources, and is a subset of R. Each member 'a' of set A is capable of carrying the requested connection. The set A of options will vary from request to request. One member 'a' of the set A is chosen at the time that the connection begins to be carried by the network. Of course, it may well be that some of the members of the set A of options are not available due to the presence of other connections on the network. While a connection is using a set 'a' of network resources, none of these resources may be used by other connections carried by the network.

In an unreconfigurable network, i.e. a network where the connections are unreconfigurable, the initial choice 'a' is fixed for the duration of the connection, and